

(FILE 'HOME' ENTERED AT 11:41:31 ON 04 MAR 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:41:48 ON 04 MAR 2004

L1 178964 S (MUTAGENESIS)
L2 509 S L1 AND HETERODUPLEX?
L3 20 S L2 AND (POLYMERASE# AND EXONUCLEASE#)
L4 11 DUP REM L3 (9 DUPLICATES REMOVED)
L5 1878 S CEL(W)I OR FEN1 OR ENDONUCLEASE (W) (VII OR I) OR CLEAVASE
L6 143 S L5 AND LIGASE
L7 7 S L6 AND MUTAGEN?
L8 7 DUP REM L7 (0 DUPLICATES REMOVED)
L9 11408 S HETERODUPLEX?
L10 113 S L9 AND (L5)
L11 36 S L10 AND POLYMERASE
L12 23 DUP REM L11 (13 DUPLICATES REMOVED)
L13 23 DUP REM L12 (0 DUPLICATES REMOVED)
L14 190 S RANDOM (9A) REPAIR?
L15 136 S L14 AND (DNA OR NUCLEIC OR OLIGO?)
L16 50 S L15 AND (MISMATCH? OR VARIAT? OR MUTA? OR HETERODUPLEX?)
L17 23 DUP REM L16 (27 DUPLICATES REMOVED)
L18 1278 S (REPAIR? OR CORRECT?) (5A) (PARTIAL? OR INCOMPLETE? OR PARTLY
L19 117 S L18 AND POLYMERASE
L20 8 S L19 AND LIGASE
L21 4 DUP REM L20 (4 DUPLICATES REMOVED)
L22 38 S L18 AND MUTAGENESIS/TI
L23 15 DUP REM L22 (23 DUPLICATES REMOVED)
L24 13 S L9 (9A) PARTIAL? (3A) (REPAIR? OR CORRECT?)
L25 6 DUP REM L24 (7 DUPLICATES REMOVED)
L26 1008 S INCOMPLETE (3A) (REPAIR? OR CORRECT?)
L27 0 S L26 AND L5
L28 125 S MUTAGENESIS AND L5
L29 89 DUP REM L28 (36 DUPLICATES REMOVED)
L30 7 S L29 AND HETERODUPLEX?
L31 82 S L29 NOT L30
L32 2205 S PADGETT?/AU
L33 3 S L32 AND HETERODUPLEX?
L34 947 S FITZMAURICE?/AU
L35 2 S L34 AND MISMATCH?

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MEDLINE

DN PubMed ID: 7788530
TI In vitro processing of **heteroduplex** loops and mismatches by
endonuclease VII.
AU Birkenkamp K; Kemper B
CS Institute for Genetics, University of Cologne, Germany.
SO DNA research : an international journal for rapid publication of reports
on genes and genomes, (1995) 2 (1) 9-14.
Journal code: 9423827. ISSN: 1340-2838.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199507
ED Entered STN: 19950807
Last Updated on STN: 19950807
Entered Medline: 19950727
AB **Endonuclease VII** is a Holliday-structure resolving enzyme of phage T4
which cleaves at junctions of branched DNAs and at mispairings. In
extension of these findings we report the following: i) **Endonuclease**
VII can discriminate between a large **heteroduplex** loop and a TT
mismatch arranged in tandem, 6 nt distant from each other, in the same
heteroduplex molecule. The enzyme cleaves two nucleotides 3' from the
base of the loop or the TT mismatch. ii) Similar to its reactions with
mismatches cleavage of **heteroduplex** loops by endonuclease VII can also
initiate correction of perfect double-strandedness by T4 DNA **polymerase**
and T4 DNA-ligase in vitro. Loops of 8 nt and 20 nt were repaired
efficiently. iii) For the first time **endonuclease VII** cleavage sites
were also mapped in single-stranded DNA if it was part of the 20-nt loop.
This suggests that looping of single-stranded DNA can induce formation of
secondary structures, which are recognizable by **endonuclease VII**.

Q447.D67

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